



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

He made some remarks upon the orbit of the comet of 1843, considered as a straight line directed through the sun's centre.

---

**Three hundred and thirty-fourth meeting.**

July 2, 1850. — MONTHLY MEETING.

The PRESIDENT in the chair.

The Corresponding Secretary communicated letters of acceptance from Professor Elias Fries of Sweden, and M. Macédoine Melloni of Naples, recently elected Foreign Members. The latter gentleman states that he has sent to the Academy the first volume of his work, "*Sur la Coloration Calorifique*," in which he has demonstrated, as he believes, the identity of light and heat.

The Corresponding Secretary also communicated letters from the Secretary of the Royal Institution, the Secretary of the Linnæan Society, the Librarian of the British Museum, and the President of the Academy of Breslau, acknowledging the receipt of various publications of the Academy; and two letters from Petty Vaughan, Esq., recently deceased.

Professor Peirce stated, that Mr. Schubert had discovered that Spica is a double star, one of the component parts of which is invisible. This conclusion was deduced by Mr. Schubert from observations made from 1764 to 1847 inclusive, and was said by Professor Peirce to rest on much stronger grounds than the similar conclusions of Bessel in regard to certain other stars. Spica has an irregular motion in right ascension, and it revolves in fifty years at the distance of one second and a half from the common centre of gravity of the two. This discovery Professor Peirce considered a most remarkable step in the progress of stellar astronomy.

Mr. S. C. Walker exhibited to the Academy a drawing illustrative of the results of experiments made by him on the 4th of February last, to determine the velocity of electricity,

through the telegraphic circuit between Washington and St. Louis, seventeen hundred miles in length. His experiments gave a velocity of a little less than ten thousand miles a second. This result he proposes to test by further experiments on telegraphic lines, in which chemical changes of colors are used, instead of markings made by an electro-magnet. Mr. Walker found that pauses and syllables could be simultaneously transmitted in opposite directions, without interference, in the telegraphic circuit, in the same manner as they are in air.

Professor Agassiz stated that he had ascertained that there are certain animals, capable of performing all the great functions of animal life, which consist entirely of cells. He referred, in illustration of his remark, to the genus *Coryne* of the Polypoid Medusæ, found in Boston harbor. He distinguished the cells of which the tentacles of these animals are composed into three kinds, — epithelian, lasso, and locomotive cells. The tentacles, which consist of two cylindrical bodies, one within the other, tapering to a point, and without any cavities, are composed entirely of such cells. The epithelian cells cover the whole surface of the tentacles. The individual lasso cells throwing out their inner cylindrical body, the tentacles are converted into stems, with long, lateral threads, for catching small animals. By the contraction of their inner or locomotive cells, they are reduced to one tenth of the length they have when elongated. The locomotive cells were stated by Professor Agassiz to undergo endosmosis and exosmosis, accompanied by a change of form in the individual cells which constitute the inner cylinder of the tentacle, and in that change, to become organs of locomotion. The apparent fibres, described by some writers, were said by Professor Agassiz to be merely elongated cells.

Professor Peirce and Dr. Walter Channing made some further remarks in regard to the cause of the elongation of the cells.

After a discussion of considerable length, in which Mr.

Guyot, Mr. B. A. Gould, Jr., Professor Agassiz, and the President took part, on the importance and practicability of introducing a uniform system of thermometrical and barometrical notation in all countries where science is cultivated, it was, on motion of Mr. Guyot, —

“ *Voted*, That a committee be appointed to consider the expediency of recommending the adoption of the centigrade thermometrical scale, and the metrical barometrical scale at the meteorological stations in Massachusetts.

“ *Voted*, That Mr. Guyot, Professor Agassiz, Professor Peirce, Professor Lovering, and Mr. B. A. Gould, Jr. be that committee.”

Professor Agassiz made some remarks respecting the structure of the egg. He stated that no two portions of the egg between the centre and the periphery have the same structure ; that the yolk does not consist of homogeneous cells ; and that it is not a store of nutritious matter to feed the young animals, but that it is a living, organized being.

On motion of Professor Peirce, it was voted that a monthly meeting of the Academy be held on the first Tuesday in August, at four o'clock, P. M.

On motion of Mr. B. A. Gould, Jr., it was

“ *Voted*, That a committee be appointed to address a memorial to the Senate and House of Representatives of the United States, on the subject of attaching a corps of scientific men to the commission for running the boundary line between the United States and Mexico.”

Professor Agassiz, Professor Peirce, and Mr. B. A. Gould, Jr., were appointed a committee for that purpose.

---

**Three hundred and thirty-fifth meeting.**

August 6, 1850. — MONTHLY MEETING.

The PRESIDENT in the chair.

The Corresponding Secretary read a letter of acceptance from Professor Bischoff of Giessen, recently elected a Foreign Member of the Academy.